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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,670

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Hui Chen

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EXAMINER

DEAN, JR, JOSEPH E

ART UNIT

PAPER NUMBER

2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,670	Applicant(s) CHEN ET AL.	
	Examiner JOSEPH DEAN, JR	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The following Office Action is in response to the preliminary amendment of May 1, 2006. Status of claims

Claims 1-11 have been cancelled.

Claims 12-22 are pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 22 is rejected under 35 U.S.C. 101 as being directed as non subject statutory matter.

Functional descriptive material such as computer programs and/or data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized." See MPEP 2106.01(I). **In the instant case, claim(s) do not meet the test above and therefore are rejected as non-statutory subject matter.**

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 12-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Cromer et al. (US20030156558) (hereinafter Cromer).

Per claim 12, Cromer discloses a method for operating a radio communication system with a radio access point and a plurality of radio stations (paragraphs 0006 and 0010), including a terminal radio station located outside of direct radio transmission range of the radio access point which requires path information about a path formed of at least one further radio station usable for message transfer between the radio access point and the terminal radio station (paragraph 0021, **i.e. see remote mobile unit, equates to terminal station**), said method comprising: learning, at the terminal radio station(paragraph 0077), about a requirement for the path information at the radio access point (paragraphs 0062 and 0063); and initiating at the terminal radio station a method for determining the path between the terminal radio station and the radio access point (paragraph 0021 **i.e. also see paragraphs 0022-0039 regarding determining first and second steps of path determination**).

Per claim 13, Cromer discloses the method as claimed in claim 12, wherein the radio communication system includes a base station located within a terminal radio coverage area of the radio access point and the terminal radio station is located within a

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second radio coverage area of the base station (paragraphs 0021, 0057 and 0058, Fig 3, **i.e. intermediate and remote mobile units function as base stations which communicate to an access point**), wherein said method further comprises notifying the base station by the radio access point about the requirement for the path information (paragraph 0029), and wherein said learning by the terminal radio station about the requirement for the path information is a result of a notification by the base station (paragraph 0079).

Per claim 14, Cromer discloses the method as claimed in claim 13, wherein a known path between the terminal radio station and the radio access point formed of at least one further radio station is known to the terminal radio station (**i.e. remote mobile unit**) and the radio access point (paragraph 0058), enabling data to be transferred from the terminal radio station to the radio access point and from the radio access point to the terminal radio station via the path (paragraphs 0032-0039 and 0058), and wherein said method further comprises receiving, at the radio access point (paragraphs 0032-0039 and 0058), failure information about failure of the known path from a radio station of the path (paragraph 0058); learning at the terminal radio station about the failure of the known path after the radio access point learns about the failure; and initiating, at the terminal radio station, a method for determining a new path between the terminal radio station and the radio access point (**paragraph 0058, i.e. Mobile unit 30 (MU30) attempts to connect to new path via MU42 (terminal radio station) and access points thru intermediate mobile units**).

Per claim 15, Cromer discloses the method as claimed in claim 14, wherein said learning about the failure of the known path at the radio access point results from information received in response to sending data from the radio access point to the terminal radio station (paragraph 0077).

Per claim 16, Cromer discloses the method as claimed in claim 15, wherein said method further comprises sending test data for the radio access point from the terminal radio station to determine whether the failure exists in the known path (paragraph 0077).

Per claim 17, Cromer discloses the method as claimed in claim 16, wherein said sending of the test data takes place at regular time intervals (paragraphs 0078-0080 and 0090).

Per claim 18, Cromer discloses the method as claimed in claim 16, wherein said learning about the failure of the known path at the terminal radio station results from said sending of the test data to determine whether the failure exists in the known path (paragraph 0077).

Per claim 19, Cromer discloses the method as claimed in claim 18, wherein said sending of the test data by the terminal radio station to determine whether the failure exists in the known path results from at least one notification sent as a result of a preceding determination of the known path (paragraph 0113).

Per claim 20, refer to same rationale explained in claim 12.

Per claim 21, Cromer discloses A radio station for a radio communication system formed of a radio access point and further radio stations, comprising: means for storing

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a path between said radio station and the radio access point (paragraph 0064), where the path is formed of at least one of the further radio stations and is used for transferring information from said radio station to the radio access point and from the radio access point to said radio station via the path (paragraphs 0058 and 0064); means for sending test data for the radio access point to determine whether a failure of the path exists (paragraphs 0076 and 0077); means for receiving and processing failure information about presence of a failure of the stored path (paragraph 0077); and means for initiating a method to determine a new path between said radio station and the radio access point following reception of the failure information (paragraph 0077).

Per claim 22, Cromer discloses a computer readable medium storing instructions that when executed control at least one processor in a radio station to perform a method comprising (paragraph 0071): storing a path between the radio station and the radio access point (paragraph 0064), where the path is formed of at least one further radio station and is used for transferring information from the radio station to the radio access point and from the radio access point to the radio station via the path (paragraphs 0058 and 0064); sending test data for the radio access point to determine whether a failure of the path exists (paragraphs 0076 and 0077); receiving and processing failure information about presence of a failure of the stored path (paragraph 0077); and initiating a method to determine a new path between the radio station and the radio access point following reception of the failure information (paragraph 0077).

Contacts

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH DEAN, JR whose telephone number is (571)270-7116. The examiner can normally be reached on Monday through Friday 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corsaro Nick can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOSEPH DEAN, JR/
Examiner, Art Unit 2617

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617